

REMARKS

Claims 1-32 and 34 were pending in this application when the Final Office Action was mailed (July 26, 2006). Claims 1-8, 18, 25-32, and 34 have been withdrawn in response to a prior Restriction Requirement. A Notice of Appeal was filed December 26, 2006, and an Appeal Brief was filed April 26, 2007. An Examiner's Answer was received August 9, 2007. In this response, claims 9 and 21 have been amended, and claims 60-65 have been added. Accordingly, claims 1-32, 34, and 60-65 are currently pending.

In the Final Office Action mailed July 26, 2006, claims 9-17 and 19-24 were rejected under 35 U.S.C. § 103(a) over the combination of U.S. Patent No. 6,608,371 to Kurashima et al. ("Kurashima") and U.S. Patent No. 6,525,413 to Cloud et al. ("Cloud"). Without commenting on or conceding the merits of the Examiner's position, independent claims 9 and 21 have been amended to further clarify the claimed subject matter.

Claim 9 is directed to a microfeature workpiece that includes a plurality of first dies. Individual first dies have a first integrated circuit and a plurality of first pads electrically coupled to the first integrated circuit. The microfeature workpiece also includes a plurality of first conductive mating structures at least proximate and electrically coupled to the first pads. The first conductive mating structures have openings projecting away from a surface of the first dies and configured to receive and interconnect with corresponding complementary second conductive mating structures on second dies which are to be mounted to corresponding first dies.

Kurashima discloses a semiconductor device including a chip 13 having a plurality of electrodes 14, a plurality of first through holes 18 aligned with corresponding electrodes 14, and an insulating material 22 disposed within the first through holes 18. The insulating material 22 has an annular configuration and defines a plurality of second through holes 24. The insulating material 22 covers the chip 13 and the electrode 14 so that the chip 13 and the electrode 14 are not exposed in the second holes 24. Conductive bumps 32 are subsequently formed in the second holes 24.

Cloud discloses, among other things, a package including a first die 10 and a second die 20. The first die 10 includes an active surface 12, a plurality of recesses in the active surface 12,

and a plurality of bond pads 14 exposed by corresponding recesses. The second die 20 includes an active surface 22, a plurality of bond pads 24, and a plurality of conductive structures 28 on corresponding bond pads 24 that project from the active surface 22. The second die 20 is attached to the first die 10 by placing the conductive structures 28 in corresponding recesses of the first die 10.

The combination of Kurashima and Cloud does not support a Section 103 rejection of claim 9 because the combined teachings fail to disclose several features of this claim. For example, the combination of Kurashima and Cloud does not disclose a conductive mating structure having "openings projecting away from a surface of the first dies" In the Examiner's Answer mailed August 9, 2007, the Examiner stated that Kurashima's electrode 14 and plating 16 on the chip 13 correspond to the first conductive mating structures, and the through holes 24 correspond to the openings of claim 9. Even assuming that the Examiner's characterization of Kurashima is correct, Kurashima's through holes 24 do not project away from a surface of the chip 13. Instead, the through holes 24 extend through the entire thickness of the chip 13. Further more, the combination of Kurashima and Cloud does not disclose or suggest the combination of "a plurality of first dies [having]... a plurality of first pads ..." and "a plurality of first conductive mating structures ... electrically coupled to the first pads." Even assuming, for the sake of argument, that Kurashima's electrode 14 and plating 16 correspond at least in part to the first conductive mating structures of claim 9 and Cloud's bond pads 24 correspond to the first pads of claim 9, the combined teachings still do not disclose or suggest that Kurashima's electrode 14 and plating 16 could be electrically coupled to Cloud's bond pads 24. Therefore, the combination of Kurashima and Cloud fails to disclose all the features of claim 9.

Claims 10-20 depend from claim 9. Accordingly, the Section 103(a) rejection of claims 10-20 should be withdrawn for at least the reasons discussed above with reference to claim 9 and for the additional features of these claims.

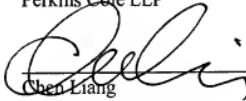
Independent claim 21 has, *inter alia*, features generally analogous to the features of claim 9. Accordingly, the Section 103(a) rejection of claim 21 should be withdrawn for at least the reasons discussed above with reference to claim 9 and for the additional features of claim 21.

Claims 22-24 depend from claim 21. Accordingly, the Section 103(a) rejection of claims 22-24 should be withdrawn for at least the reasons discussed above with reference to claim 21 and for the additional features of these claims.

In view of the foregoing, the pending claims comply with 35 U.S.C. § 112 and are patentable over the applied art. The applicants accordingly request reconsideration of the application and a Notice of Allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to contact Chen Liang at (206) 359-6038.

Respectfully submitted,

Perkins Coie LLP



Chen Liang

Registration No. 51,945

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Correspondence Address:

Customer No. 25096
Perkins Coie LLP
P.O. Box 1247
Seattle, Washington 98111-1247
(206) 359-8000